

LOCATION: R.M. 81.2 on Cypress Creek, 9 miles west of Jefferson, TX, in Marion County.

DRAINAGE AREA:

350-880 square miles\*

One inch of runoff 45,330 acre-feet

DAM:

Type: Rolled earth fill  
Length: 10,600'  
Maximum Height: 97'  
Top Width: 30'

SPILLWAY:

Crest Elev: 249.5' msl  
Width: 200'  
Type: Ogee  
Control: None

\*Recent maps indicate a drainage area of 880 square miles instead of the 850 square miles used in the design of the reservoir.

INFLOW:

Spillway design flood peak, cfs 367,100  
Spillway design flood volume, ac-ft 1,320,300  
Spillway design flood runoff, inches 29.1

OUTFLOW:

Total routed peak outflow, cfs 74,600  
Spillway, cfs 68,200  
Outlet works, cfs 6,400

OUTLET WORKS:

Type: 2 gate controlled conduits  
Dimension: 2-10' diameter  
Invert elev: 199.0' msl  
Control: 2-8'x12.5' gates

LOW-FLOW OUTLETS:

Type: 1 - 14" cast iron pipe, paralleling outlet structure before intersecting outlet conduit about 9 feet beyond the service gate.

POWER FEATURES:

None

Feature	: Elev : (msl)	: Reser- : voir : area : (acres)	: Reservoir Capacity : Accumu- : lative : (ac-ft)	: Runoff : (inches)	: Incre- : mental : (ac-ft)	: Spillway : Capacity : (cfs)	: Outlet Works : Capacity : (cfs)
Top of Dam	277.0		1,856,000				
Max Design Water Surface	269.9	63,200	1,013,900	22.4 40.7		68,200	6,400
Top of Flood Control Pool	249.5	38,200	842,100	13.0 18.58	336,100	587,200	
Top of Conservation Pool	228.5	18,700	254,300	5.5 5.62	247,300	251,100	
Bottom of Conservation Pool	201.0	1,100	3,800	0.1	1,650		
Sediment Reserve					2,150**		
Total Storage					587,200		
Streambed	180.0				8 42,100		

\*\*Estimated 50 years of sediment storage below elevation 249.5' msl.

STORAGE BETWEEN 228.50 and 230.00 = 28,800 AF = .64" Runoff

(Sheet 1 of 2)  
LAKE O'THE PINES -  
FERRELL'S BRIDGE DAM

AUTHORIZATION: Flood Control Act approved 24 July 1946 (PL 79-526) (HD 602/79/2), Mod by PL 75-208.

PROJECT COST ESTIMATE (OCT 59):

Federal:	\$14,900,000
Non-Federal:	None*
Total:	\$14,900,000

ANNUAL O&M COST (FY 81):

Federal:	\$ 980,600
Non-Federal:	33,500
Total:	\$ 1,014,100

COST ALLOCATION METHOD: Incremental

LOCAL AGENCY: Northeast Texas Municipal Water District

LAND ACQUISITION:

	: Guide Contour ('msl)	Area (Acres)
Fee simple	236	29,105
Easement	254.5	16,320
Total		45,425

FLOOD DATA:

Date	Peak Discharge (cfs)
Apr 45	57,100
Apr 58	69,200
May 66	38,600

Bankfull capacities below dam: Dam to below confluence with Little Cypress and Black Cypress - 3000 cfs; Below confluence to Caddo Lake - 7000 cfs. Gaging Stations: Big Cypress Cr near Winnsboro, Lake Cypress Springs near Mount Vernon, Big Cypress Cr near Pittsburg, Boggy Cr near Daingerfield, Ellison Creek Reservoir near Lone Star, Lake O'the Pines near Jefferson, Black Cypress Bayou at Jefferson, Little Cypress Cr near Ore City, Little Cypress Cr near Jefferson, Frazier Cr near Linden

STATUS OF PROJECT: Construction initiated on 10 Jan 55 with relocation of FM 726. Dam completed 25 Jun 58. Deliberate impoundment started 21 Aug 57 when cofferdam was closed across Cypress Creek in order to complete the dam embankment. Project is complete and operational.

\*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION:

A water supply storage contract with the Northeast Texas Municipal Water District was approved 21 Oct 57 for 100 percent (250,000 ac-ft) of the conservation between elevations 228.5 and 201.0 ft msl. NETMWD has paid \$1,752,565.37 and will pay their share of the annual O&M cost for this water supply storage space.

REMARKS:

Dependable yield\*\*: 235 cfs or 152 MGD

\*\*Based on a critical period from May 55 - Feb 57 and 50 years of sedimentation.

Visitation (1981): 3,981,742

Shoreline at top of conservation pool: NOT PROVIDED

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LAKE O'THE PINES -  
FERRELL'S BRIDGE DAM